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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,003	03/02/2004	Yiping Hu	H0004334--1065	4287

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EXAMINER

KOEHLER, ROBERT R

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/792,003

Applicant(s)

HU ET AL.

Examiner

Robert R. Koehler

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 18-21 and 24-33 is/are allowed.
- 6) ☒ Claim(s) 1-15, 22, 23 and 34-40 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

RRK
6-24-05

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 03022004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In claim 30, the subject matter directed to a "method for preparing a coated high pressure turbine blade for assembly in a gas turbine engine," including all of the process steps recited in claim 30, cannot be found in the specification. See paragraphs [00045] to [00050] on pages 19 to 21 of the specification.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 22 recites the limitation "grinding the turbine blade tip" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim.

2. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "grinding the turbine blade tip such that the turbine blade reaches a preferred dimension" in lines 2 and 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

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3. Claims 34 to 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 34 to 40 are rejected as being vague and indefinite because claim 34 does not define the element "X" in the alloy formula "MCrAlYX." The alloying elements represented by "X" should be recited in claim 34. Also, claim 34 does not define the element "M" in the alloy formula "MCrAlYX." The alloying elements represented by "M" should also be recited in claim 34.

Double Patenting

1. Applicant is advised that should claim 10 be found allowable, claim 15 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

2. Applicant is advised that should claim 16 be found allowable, claim 17 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

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Claim 15 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 26 of copending Application No. 11/013,218 (Renteria, et al.). This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10 to 14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 15 to 17 and 23 to 25 of copending Application No. 11/013,218 (Renteria, et al.). Although the conflicting claims are not identical, they are not patentably distinct from each other because both sets of claims are directed to nickel-base alloy powder compositions containing the same alloying elements with overlapping alloy elemental ranges. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected the overlapping portion of each alloy elemental range and arrive at the claimed nickel-base alloy powder compositions.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 to 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,455,119 (Taylor, et al.).

Taylor, et al. discloses a nickel-base coating composition in powder form that contains nickel, cobalt, yttrium, hafnium, tantalum, platinum, and rhenium having alloy elemental ranges that overlap applicants' claimed alloy elemental range limits. The nickel-base coatings disclosed by Taylor, et al. can be used on various superalloy substrates. See line 54 in column 4 to line 25 in column 6, the Abstract, and TABLE 1. Prior art which teaches a range within, overlapping, or touching the claimed range anticipates if the prior art range discloses the claimed range with sufficient specificity. See MPEP 2131.03 and *Ex parte Lee*, 31 USPQ2d 1105 (Bd. Pat. App. & Inter. 1993).

2. Claims 34 to 40 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,152,488 (Schilke, et al.).

Schilke, et al. discloses a gas turbine blade tip alloy that contains chromium, aluminum, tantalum, yttrium, and nickel. The nickel-base alloy compositions disclosed by Schilke, et al. is useful as a tip element on turbine blades formed of conventional nickel-base superalloys. See the Abstract and line 50 in column 1 to line 29 in column 4. The conventional turbine blades mentioned by Schilke, et al. are expected to possess an airfoil having a convex face and a concave face, a base assembly attached to the airfoil, and a tip at the outer radial end of the airfoil.

Allowable Subject Matter

Claims 16, 18 to 21, and 24 to 33 are allowed.

The following is a statement of reasons for the indication of allowable subject matter:
The prior art search has not produced any references which teach, suggest, or disclose applicants' claimed nickel-base powder composition comprising Co, Cr, Al, Y, Hf, Si, Zr, Ta, Re,

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Ru, and the balance nickel. Also, the prior art does not teach, suggest, or disclose applicants' claimed methods of applying an alloy coating represented by the formula "MCrAlYX" to a turbine blade surface through laser powder fusion welding or laser cladding.

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Robert Koehler whose telephone number is **(571) 272-1536**. The Examiner can normally be reached on Tuesday to Friday from 9:30 AM to 7:00 PM. The Examiner can also be reached on alternate Mondays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Deborah Jones, can be reached on **(571) 272-1535**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).



**ROBERT R. KOEHLER
PRIMARY EXAMINER**

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June 24, 2005**